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EKOMI, INC.
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| EXAMINER |
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FLANDERS, ANDREW C

| ART UNIT | PAPER NUMBER |
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2615

DATE MAILED: 11/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/751,151

Applicant(s)

MARSHALL ET AL.

Examiner

Andrew C. Flanders

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,36-38 and 71-73 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,36-38 and 71-73 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 08 September 2006 have been fully considered but they are not persuasive.

Applicant alleges:

"Best also fails to disclose automatically determining a scale factor based on the entirety of the said digital audio files. Best discloses an analog mixer and a control box 54 that manually alters various sound levels before entering the mixer 30 (Column 3, Lines 21 - 23). According to Best, the various sound levels are equalized "by providing a series resistance 47 and a shunt resistance 48" controlled "by a shaft 50, operated by a bell crank 51, connected through a rod 52 with a control box 54" (Column 3, Lines 20 - 33). The various sounds levels are equalized by manually altering a lever 55, which alters the attenuation pad by two db with each notch in the control box (Column 3, Lines 40). Best automatically vary the amplitude levels based on an average level of sound. Two dB preset increments are used with manual setting. Best vary relative amplitude automatically. The scale factor is set manually. Best do not automatically determine a scale factor. Even assuming a manually set weighting or a scale factor, manual setting is not automatic determination of the scale factor. Thus, both Ueno et al. and Best fail to disclose a scale factor based on the entirety of the said digital audio files. Accordingly, claim 1 is allowable over the cited prior art for at least this reason."

Examiner respectfully disagrees. As disclosed in the previous rejection, Ueno discloses automatically determining scale factors (OA at page 3). What Ueno does not explicitly disclose is that this determination is done based upon an analysis of the entire file. Best discloses varying a sound sequenced based upon a predetermined average level of the sound sequence. Furthermore, Best states that the average levels for the scense (i.e. sound sequences) may be at 50%, 60% or 35%. These levels are

predetermined and for an entire sequence. Thus the analysis is done on the entire sequence. While Applicant maintains that "Best do[es] not automatically determine a scale factor", it is not necessary. The combination only requires the analysis of the entirety of the file as Ueno discloses the determination of the scale factors, just not on the entire file. As such, when taken in combination, Ueno in view of Best discloses automatically determining a scale factor (Ueno; col. 12 lines 60 – 70) based on the entirety of the said digital audio files (Best; predetermined levels of the sequence).

Applicant further alleges:

"Best also use a predetermined average level of each sound sequence to vary the amplitude (Column 2, Lines 1 - 6). According to Best a percentage of modulation is used (Column 3, Lines 4 - 19). "One scene may be at 50 % modulation, another at 60%, and another at 35%, etc." (Column 3, Lines 11 - 12). This characteristic of each sequence is treated as a given by Best. Best does not suggest analysis of the entirety of a stored file to determine the scale factors. Accordingly, claim 1 is allowable over the cited prior art for at least this reason."

Examiner respectfully disagrees. The method of scaling/varying the amplitude in Best is irrelevant. The teaching taken from Best used in the combination is that before the scaling is done, the device finds a "predetermined average" of a sequence. To arrive at a predetermined average for a sequence, an analysis of that entire sequence must be performed. Further, the scale factors are determined by Ueno, not from the teachings taken from Best. The combination only requires the analysis of the entirety of the file as Ueno discloses the determination of the scale factors, just not on the entire file.

Applicant further alleges:

Claim 1 is allowable for additional reasons that are independent of the reasons set forth above. Claim 1 is allowable because there is no motivation to combine the arrangements disclosed by Ueno et al. and Best. According to Ueno et al., high compression of a signal is "achieved with the use of pre-existing encoding and decoding units by handling the channels in common without dependency upon the degree of correlation of multi-channel digital data" (abstract). According to Ueno et al., signals for different outputs handled in common are more stable because there are less changes in the processing method (Column 4, Lines 55 -59) and more accurate because there is less chance of error (Column 3, Lines 30 - 35). Best discloses signals which are entirely channel-based data that is not handled in common. Incorporating the signals taught by Best into the arrangement disclosed by Ueno et al. would be detrimental to the remedy taught by Ueno et al. Thus, there is no motivation to combine the teachings of Best and Ueno et al. because the combined system would be unstable and produce inaccurate signals. Accordingly, claim 1 is allowable over the cited prior art.

Examiner respectfully disagrees. Applicant alleges that "Incorporating the signals taught by Best into the arrangement disclosed by Ueno et al. would be detrimental to the remedy taught by Ueno et al." However, the signals from Best are not incorporated into the system disclosed by Ueno, merely the teaching that the signals can be analyzed in their entirety. Furthermore it is unclear how the combined system would be unstable and produce inaccurate signals as the signals from Best are not incorporated into Ueno, only the step of analyzing. Further clarification is respectfully requested.

Applicant further alleges:

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“Ueno et al. disclose encoding techniques for use with different sound output channels, such as left and right speakers (abstract). However, Best teach a system for mixing together different input sound tracks. A person of ordinary skill in the art would not have used the weighting of tracks for input mixing of Best with the audio for multi-speaker output systems of Ueno et al. These two teachings are directed to entirely different processes - input and output.”

Examiner respectfully disagrees. The allegation that the teachings are directed to entirely different processes, input and output is irrelevant. Both devices are directed to scaling an audio file. Whether it is done prior to recording or at playback does not affect the functionality of the scaling.

Applicant further alleges:

Ueno et al. disclose high compression encoding techniques. These techniques rely on complex digital processes using specific algorithms (Column 1, Line 13 - Column 2, Line 34). Best disclose analog mixing. A person of ordinary skill in the art would not have used the analog-based relative weighting teachings of Best for complex digital encoding or compression of Ueno et al. The weighting of Best is simply not applicable to the specific mathematics based encoding of Ueno et al.

Examiner respectfully disagrees. While Best is directed to analog mixing, it is merely used to show that the analysis of an entire segment is well known in the art. Many known analog based processes such as filtering, volume control, mixing etc. are now well known to be implemented in digital systems. Digital processing gives a device more freedom to adjust various operations, quicker and more precise processing and many other advantages.

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Applicant further alleges:

Claims 2, 37 and 72 recite, inter alia, automatic digital audio mixing is resident on the server and initiated upon receiving one of said at least two digital audio files from said client device. The Examiner alleges Fredrick teaches that "the network audio is always active" and that the "said automatic digital audio mixing is resident on the server and initiated upon receiving one of said at least two digital audio files from said client device" (Office Action dated April 5, 2006; Page 5). Applicants respectfully disagree. According to Fredrick, the network audio is not always active. Fredrick teaches "[p]eriodic interrupts received by processor 105 from timer 109 can cause a transfer of control from tasks to service procedures in kernel 151" (Column 5, Lines 29 - 31). "Operating system 150 provided software timing services whereby a process can be scheduled to run at one or more specified timer interrupts" (Column 5, Lines 35 - 37). "In particular, a procedure for servicing a mixer and that mixer's associated input and output queues can be caused to run upon the occurrence of the next timer interrupt, the next one after that, or in general the Nth next timer interrupt where N is a positive integer of a size that can be conveniently represented in a unit of memory 106, such as a 16-bit or 32-bit integer" (Column 5, Lines 42 - 49). The mixer is only activated when the timer 109 generates the periodic interrupt. In other words, the mixer and network audio are not always active, so the automatic digital audio mixing is not initiated upon receiving one of said at least two digital audio files from said client device. Frederick fails to disclose automatic digital audio mixing is resident on the server and initiated upon receiving one of said at least two digital audio files from said client device. Accordingly, Claims 2, 37 and 72 are allowable over the cited prior art.

Examiner respectfully disagrees. Applicants primary allegation is that the "network audio is not always active". This is true for other examples such as the examples in the passages referenced by Applicant. However, it is clear that in the example used in the rejection, the audio is always active. The cited passage in the previous action states exactly that "Thus network audio data is always active in this example..." (col. 13 lines 35 - 40).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 36, 38, 71 and 73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno (U.S. Patent 5,859,826) in view of Best (U.S. Patent 2,265,097).

Regarding **Claims 1, 36 and 71**, Ueno discloses:

A method for automatic digital audio mixing of at least two digital audio files (Fig. 1), comprising:

reading at least two digital audio files (Fig. 9 and data of the channels are fed to input terminals; col. 12 lines 35 - 39);

automatically determining scale factors for scaling each of said digital audio files based on an analysis of said at least two digital audio files by a digital processing unit; wherein each scale factor is based on an analysis of each of said at least two digital audio files relative to each other (Fig. 10 element 141; the common parameter extractor analyzes the dependence of the channel with respect to the data of the channels handled in common... in order to find the scale parameters of the channel under consideration; col. 12 lines 60 – 67)

applying each said scale factor to each of said digital audio files respectively to create scaled digital audio files (i.e. setting scale factors in the encoder; col. 15 lines 25 – 29)

combining each of said scaled digital audio files into a single audio recording output as a digital file on a storage medium (i.e. the data is multiplexed into one track; Fig. 9 107; which can then be written to a recording medium as shown in Fig. 1).

Ueno does not explicitly disclose that the analysis is of the entirety of each said digital audio file.

Best discloses automatically varying the amplitude level of various sound sequence between the output of a sound reproducer and a sound recorder in accordance with the predetermined average level of the respective sound sequences being reproduced; col. 2 lines 1 – 6. Applying this technique of a predetermined level of sound sequences to the scaling disclosed by Ueno reads upon the limitation of the analysis is of the entirety of each said digital audio file.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Best on the invention disclosed by Ueno. One would have been motivated to do so in order to avoid an output in which the average sound level varies from sequence to sequence; col. 1 in Best.

Regarding **Claims 3, 38 and 73**, in addition to the elements stated above regarding claims 1, 36 and 71, the combination further discloses:

receiving one of said at least two digital audio files from a user (the inputs of Ueno are not explicitly disclosed to be received from a user, however, they must be provided to the system in some manner. Whether they are applied automatically or manually, at some point the data must be created or applied by a user.)

Claims 2, 37 and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno (U.S. Patent 5,859,826) in view of Best (U.S. Patent 2,265,097) and in further view of Frederick (U.S. Patent 5,768,126)

Regarding **Claims 2, 37 and 72**, in addition to the elements stated above regarding claims 1, 36, and 71, the combination fails to disclose wherein said method is performed within a server device operatively coupled over a network to a client device; wherein said automatic digital audio mixing is resident on the server and initiated upon receiving one of said at least two digital audio files from said client device.

Frederick discloses mixing software which can process streams of digital audio samples originating from a local area network; col. 1 lines 19 – 21, audio data 470 is received from the network interface and network audio data is always active in this example, audio received from the network contributes to the network and is mixed to be made audible; col. 13 lines 34 – 40.

Applying the mixer of the combination above to a computer based audio mixer as to receive audio from a network as taught by Frederick would thus perform said method within a server device operative coupled over a network to a client device. Since the network audio is always active the said automatic digital audio mixing is resident on the server and initiated upon receiving one of said at least two digital audio files from said client device.

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the mixer taught by the combination to the computer based mixer taught by Frederick. One would have been motivated to do so to create a computer audio mixer that achieves multi-stream audio functionality without interrupting existing application programs being run; col. 3 lines 24 – 28 of Frederick.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Flanders whose telephone number is (571) 272-7516. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7546. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

acf


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